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FACULTY OF EDUCATION**

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Assignment Topic:

Design and Comparison of Digital Library software for WanChai District

Student Declaration:

This assignment is entirely my own work except where I have duly acknowledged other sources in the text and listed those sources at the end of the assignment; I have not previously submitted this work to this University or any other institution for a degree, diploma or other qualification; I understand that I may be orally examined on my submission.

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Topic: Design and Comparison of Digital Library
software for WanChai District

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Content

	Pages
1. Introduction	1
2. Wiki, Greenstone and DSpace	2
3. Analysis of users' information needs and search tasks	4
4. Comparisons of DSpace, GSDL and MediaWiki	7
4.1 Content management	7
4.1.1 Metadata Schema support	7
4.1.2 Search support	8
4.2 User interface.	11
4.2.1 Interface Modification	11
4.3 System support and help	12
4.3.1 System support	13
5. Overall performance of the three open source software	15
6. Conclusion	16
7. References	17
8. Appendixes	20

1. Introduction

The definition of digital library (DL) varies from people to people as they have different stands when talking about DL. For the user community, they define DL as “a library in which a significant proportion of the resources are available in machine-readable format (as opposed to print or microform), accessible by means of computers. The digital content may be locally held or accessed remotely via computer networks. In libraries, the process of digitization began with the catalog, moved to periodical indexes and abstracting services, then to periodicals and large reference works, and finally to book publishing. Some of the largest digital libraries are purely digital having few if any physical holdings.” (Wikipedia, 2007) On the other hand, Witten and Bainbridge (2002), the experts of computer science define the DL “as an organized collection of information, a focused collection of digital objects, including text, video, and audio, along with methods for access and retrieval, and for selection, organization, and maintenance of the collection.”

The purpose of this paper is to design a DL for WanChai District. Setting up a DL for the district helps preserve the history and culture that are distinct to the district. Besides, it helps facilitate the knowledge sharing between Wan Chai and other districts in Hong Kong. Furthermore, it enables the district administrators, the government, and others who have a personal or research interest about the district to have an efficient and effective way of accessing the needed information regarding the district.

This paper will focus on the users' need assessment and the examination of three open source software for producing DL in regards of their suitability as the DL. To gather user requirements, the first step of our project is to conduct user need assessment from users. After that, all group members will take a deep investigation with the three open source software. The tools which had been studied are Greenstone Digital Library (GSDL) which has been built and maintained by New Zealand DL Project at the University of Waikato, DSpace which was jointly developed by MIT Libraries and Hewlett-Packard Labs, and a wiki system. Specifically, MediaWiki was chosen mainly because of its popularity. MediaWiki is the wiki technology adopted by the popular online encyclopedia “Wikipedia”. The three tools were selected in relation to their different approaches in DL development.

2. Wiki, Greenstone and DSpace

In this section, some background information about the three selected open-sources software tools, namely Wiki, GSDL and DSpace are given. All of them offer basic features for developing digital collections that can be accessed through a web interface.

Wiki

Wiki is an intriguing tool that facilitates communication, collaborative authoring, and web site administration (Frumkin, 2005). Apparently all wiki systems appear to support some kind of access control for different types of users if necessary. They offer a user-friendly content editor so that users can edit page content (which may include hyperlinks and images) easily. Keyword search in title is typically supported by Wiki. File attachment is usually supported too. All these features provide the basic means for DL development.

GSDL

The GSDL came out of the New Zealand DL Project at the University of Waikato, and has been developed and distributed in cooperation with UNESCO and the Human Info NGO. GSDL is a comprehensive suite of software for building and distributing DL collections on the Internet or on removable media (Witten & Bainbridge, 2002). According to the Greenstone web site (www.greenstone.org), the aim of the software is *“to empower users, particularly in universities, libraries, and other public service institutions, to build their own digital libraries”* and it is hope that the software *“will encourage the effective deployment of digital libraries to share information and place it in the public domain.”*

GSDL provides a multi-lingual customizable interface for its users. It supports building of collections (and sub-collections) with effective full-text and fielded search and metadata-based browsing facilities (Sonkar, Makhija, Kumar, & Singh, 2005). Search results can be ranked by relevance or sorted by a metadata element. In addition to the support of a number of meta-data standards like MARC21 and Dublin Core, users are allowed to define their own metadata. Metadata can be associated with documents and individual sections within documents for browsing and search. In fact, GSDL can associate different collections with different browsing facilities by configuring the collection building process.

Extensibility is achieved through software “plugins” that can be written to accommodate new document types and metadata (Witten & Bainbridge, 2005). Access control to collections or even individual documents is supported by GSDL through a password protection scheme.

GSDL is easy to install. Online documentation and tutorials are available on the Greenstone web site, and a number of organizations even offer training courses (Goh, et al., 2006).

Dspace

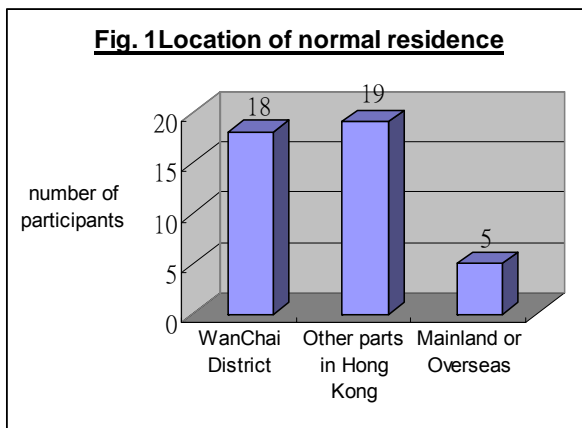
Unlike GSDL, DSpace was devised for setting up digital repositories for long term preservation. Digital objects stored in DSpace are typically downloaded for viewing instead of being viewed online. DSpace’s digital repositories are kept in centralized computer facilities which require a competent infrastructure for software support. DSpace adopts Dublin Core as the metadata standard on all collections. Several pieces of metadata are selected to support searching by default. Modification to the default will only be effective after a system restart. Compared to Greenstone, the installation effort of DSpace is significant more than that of GSDL because it is necessary to add more plug-in software to fully support the DSpace’s operations.

DSpace allows its users to define their policy for publishing in a collection. Such a policy will describe who can submit materials to the collection, whether the submitted materials need moderation before they are made “viewable” to the intended readers.

Foster & Gibbons (2005) have suggested using an institution repository (IR) to archive electronic materials of universities. She indicated that “In a university setting, an IR may provide a place for faculty work, student theses and dissertations, e-journals, datasets and so on”. Moreover, she also pointed that “IRs provide an institution with a mechanism to showcase its scholarly output, centralize and introduce efficiencies to the stewardship of digital documents of value, and respond proactively to the escalating crisis in scholarly communication”. In fact, DSpace offers the basic functionality required to operate an institutional digital repository.

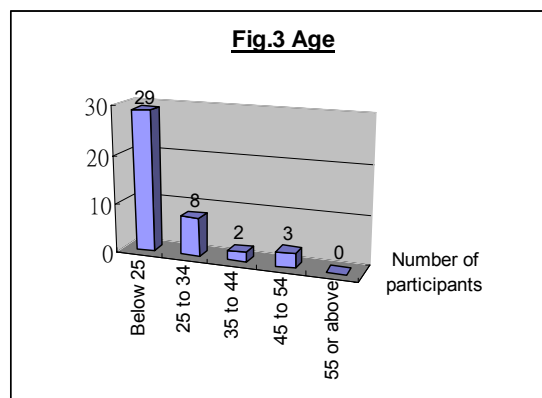
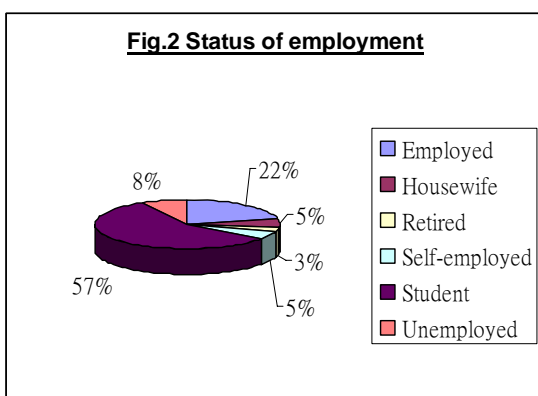
3. Analysis of users' information needs and search tasks

A fundamental goal of needs assessment is to identify large numbers of specific needs and map these unique needs into common classes of needs that may be met with standardized task procedures (Marchionini, Plaisant, & Komlodi, 2003). To conduct the user need assessment, 42 potential users were interviewed by using a questionnaire (Appendix 1.1 & Appendix 1.2). There are four participants who come from Mainland or Overseas. While 3 participants are living in WanChai District, the rest of the participants are living in other districts in Hong Kong. Fig 1 shows the location of normal residence.

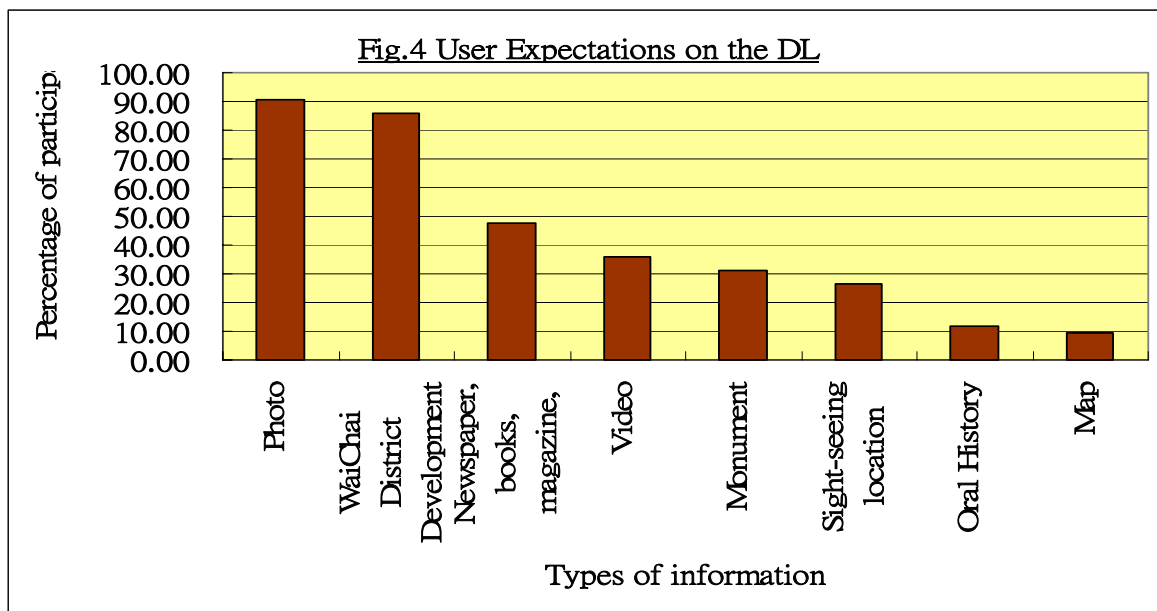


The potential users of this DL are identified as any people who are interested in WanChai District, our participants are divided into WanChai residents, other districts in Hong Kong, overseas and mainland. The street survey was conducted on 23 April, 2007 in WanChai District from 10am to 3pm. There are totally 42 participants while are 18 males and 24 females. Besides, all participants for users need assessment are considered as potential users as they all interested in information about WanChai District.

In the survey, more than half of the participants are students, Fig.2 shows the status of the participants' employment. Fig. 3 indicates the age range of the participants.



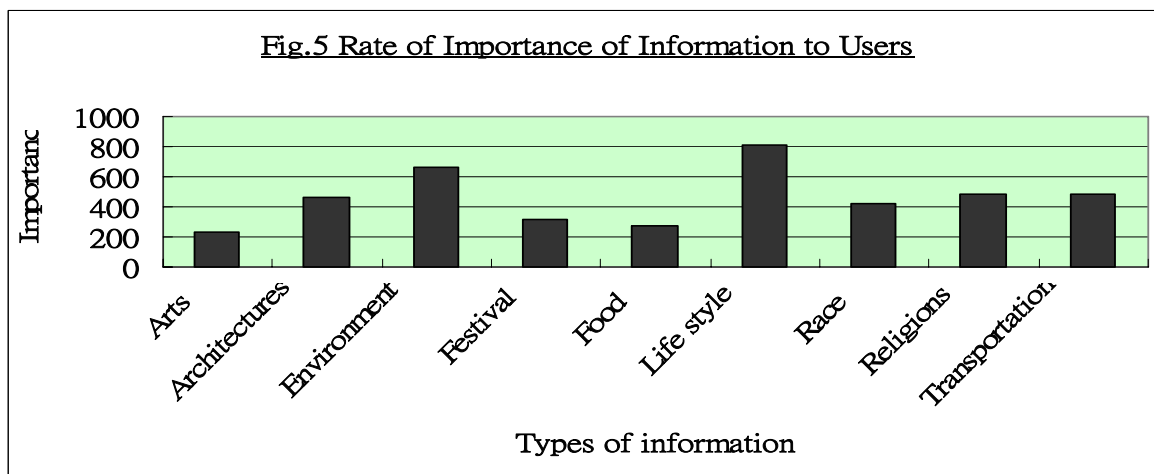
Through the survey, participants are solicited free thoughts by asking their expectations on the DL. Then they are prompted by rating the importance of various elements in this DL. Around 90% of participants suggested that photos should be included in the DL. Besides, 36 out of 42 participants claimed that they also wished to search information about the development of WanChai District like architecture,



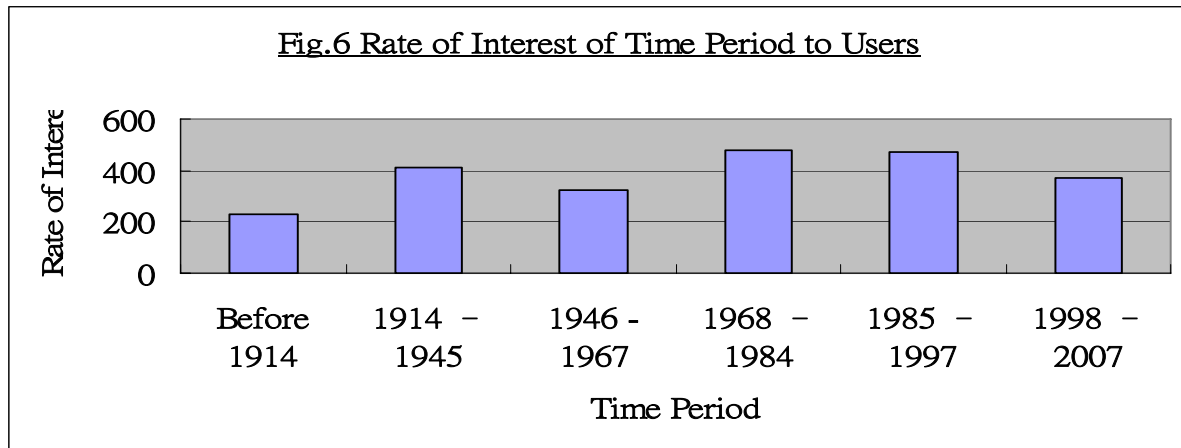
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environment, history, lifestyle, and transportation. About half of them said that they need other information like newspaper, books, magazine, and government publications. Only 5 participants replied that oral history should be contained in the DL. Fig. 4 indicates the user expectations on the DL.

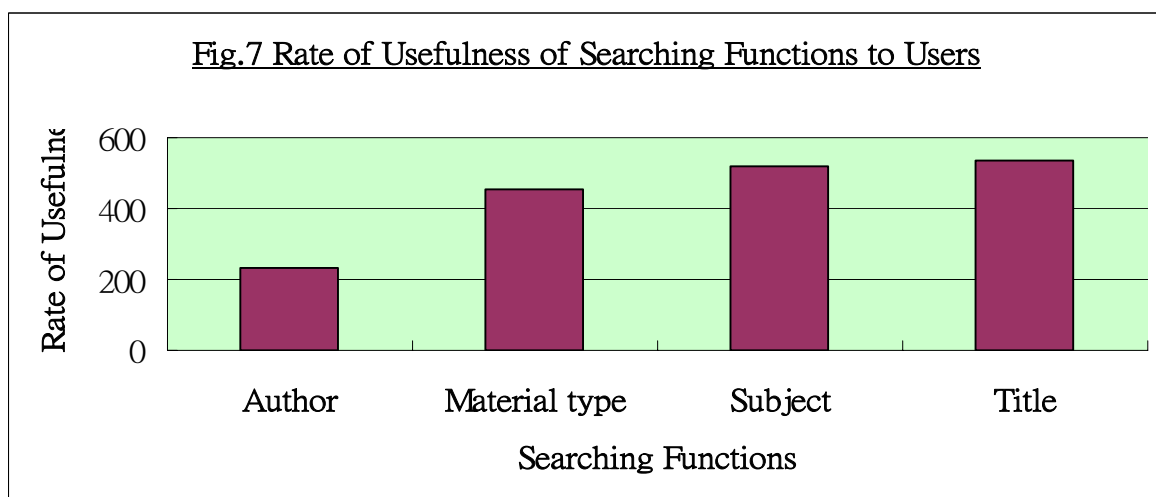
In addition, the information of architectures, environment, food and lifestyle are the participants' main concern. In parallel, some participants thought that the purpose of the DL and political information about WanChai District should be comprised as well. Fig. 5 shows the rate of importance of different types of information.



Moreover, most participants are interested in the information from 1968 to 1984 (Leftist Riots to Sino-British Joint Declaration) and 1985 to 1997 (Sino-British Joint Declaration to Sovereignty Transfer of Hong Kong) Fig. 6 shows the detailed information.



Furthermore, Foo and Theng (2005) suggested “Searching and browsing are important forms of interaction support of information seekers.” For the search functions, subject and title are ranked as the most useful search fields for participants to locate information in the DL. There are 5 participants recommended that date is another useful search function in the DL. Surprisingly, about half of the participants indicated that author is not a useful search function due to the reason that the author is very difficult to identify in this DL. Furthermore, there are 3 participants specified that “date” is a very useful search function. Fig.7 shows more details about the search functions.



4. Comparisons of DSpace, GSDL and MediaWiki

A similar research paper “A checklist for evaluating open source DL software” by Goh, Chua, Khoo, Khoo, Mak, Ng is conducted in 2006. The objectives of that research are to develop a checklist for evaluating open source DL software and further use this checklist on four DL software. As the object is quite similar to our work, based on that research paper, we select content management and user interface as our evaluation criteria. Besides, system support and help are added as the other evaluation criteria. The templates of each software are shown in the following:

DSpace: <http://dspace.cite.hku.hk:8080/dspace/>

GSDL: <http://greenstone-dev.cite.hku.hk/cgi-bin/library>.

MediaWiki:

http://mediawiki-dev.cite.hku.hk/index.php/Digital_Collection_of_WanChai_District_Council

4.1 Content management

This requirement is related to the ease with which content is created, submitted, reviewed, organized and versioned within the DL. It encompasses the provision for searching and browsing functions such as metadata search, and full-text search. (Goh, et al. 2006)

4.1.1 Metadata Schema support

Many different metadata schemas are being developed in a variety of user environments and disciplines. Generally, metadata is data that describes the content, format or attributes of a data record or information resources. It can be used to describe structured or unstructured information; applied for printed documents, digital data, and electronic resources; and embedded within the information resources or held separately in a database. (Haynes, 2004)

Numbers of common metadata schemas are listed in Fig. 8. The most common one is Dublin Core, which is a standard for cross-domain information resource description (Wikipedia, 2007). The second one is Request for Comments1807 (RFC 1807), which is a format for bibliographic records. (Lasher & Cohen, 1995) Besides, New Zealand Government Locator Service (NZGLS) and Australian Government Locator Service (AGLS) are also very popular in Australia. NXGLS metadata standard is the official New Zealand Government standard for creating discovery-level metadata (State Services Commission, 2007) while AGLS is a set of descriptive elements which government departments and agencies use to improve the visibility and accessibility of their services and information (Commonwealth of Australia, 2007).

In addition, Machine-Readable Cataloging 21 (MARC 21) is well-known in library system, which is for the representation and communication of bibliographic and related information in machine-readable form, and related documentation (Wikipedia 2007). Moreover, Visual Resources Association (VRA) Core Categories consists of a single element set that can be applied as many times as necessary to create records to describe works of visual culture as well as the images that documents them (VRA Data Stands Committee, 2001).

	DSpace	GSDL	MediaWiki
Dublin Core	Yes	Yes	No
RFC 1807	No	Yes	No
NZGLS	No	Yes	No
AGLS	No	Yes	No
MARC 21	No	No	No
VRA Core Categories	No	No	No

Fig. 8 Metadata Schema supported by DSpace, GSDL and MediaWiki

Among these three software, GSDL supports four metadata schemas which are Dublin Core, RFC 1807, NZDLS, and AGLS. DSpace carries one set of metadata schema only, which is Dublin Core, the most common one. However, MediaWiki does not support any metadata schema. It may affect its retrieval performance and even frustrate an efficient content management. Therefore, taking metadata support as our main consideration, we may conclude that GSDL is the best performer in content management among three software attribute to GSDL provides a wider range of metadata schemas.

4.1.2 Search support

In this project, three electronic materials related to “temple” were uploaded in each software. The search function(s) provided by each software are shown in Fig. 9.

	DSpace	GSDL	MediaWiki
Search Function(s)	Keyword Search	Title Search Filenames Search	Page Title Search

Fig. 9 Search functions supported by DSpace, GSDL and MediaWiki

We search “Temple” in each software, there are three hits in DSpace which is perfectly match with what we uploaded to the software. We found that DSpace provides the best search function and browse function among these three software as DSpace can allow users browse by title, author, subjects and date while other software do not provide browse function.

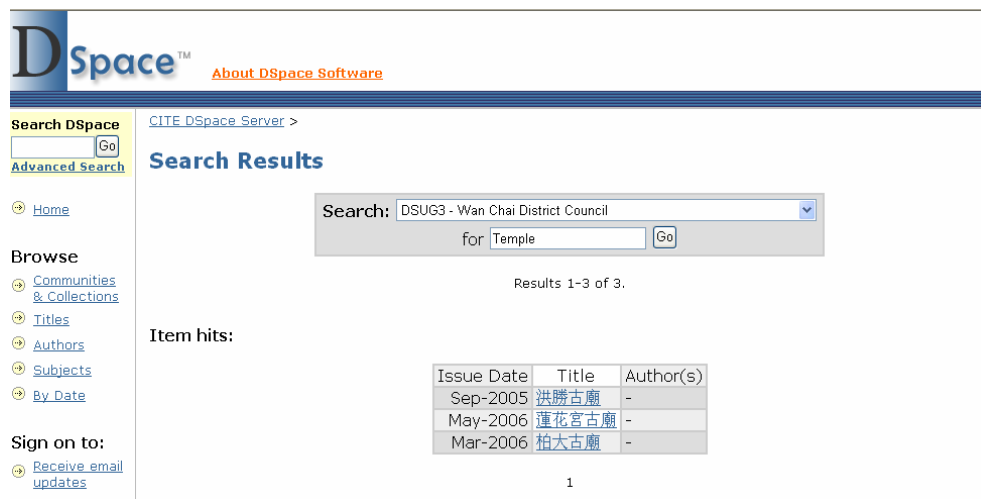


Fig. 10 Search Result in DSpace

Titles Search and Filenames Search are provided by GSDL and the search results are shown in Fig. 10. There are three hits in titles search, but only two hits in filenames search.

The original filename of an electronic material called “Lin Fa Kung Temple.jpg” is uploaded to GSDL, while the software detected the filename as “Lin%20Fa%20Kung%20Temple.jpg”, therefore when we search for filenames that contain all of the words “Temple”, this electronic material cannot be found as the software detected “Lin%20Fa%20Kung%20Temple.jpg” as one single word. To diminish this problem, we can replace the spacing by underscore, like “Lin_Fa_Kung_Temple.jpg” (Fig. 11 shows the search result in GSDL)






<p>Word count: temple: 3 3 documents matched the query.</p> <p> Lin Fa Kung Temple (Lin%20Fa%20Kung%20Temple.jpg)</p> <p> Hung Shing Temple (Hung_Shing_Temple.jpg)</p> <p> Pak+Tai+Temple (Pak+Tai+Temple.jpg)</p>	<p>Word count: temple: 2 2 documents matched the query.</p> <p> Hung Shing Temple (Hung_Shing_Temple.jpg)</p> <p> Pak+Tai+Temple (Pak+Tai+Temple.jpg)</p>
<p>Search for TITLES that contain ALL of the words “Temple” 3 Hits</p>	<p>○ Search for FILENAMES that contain ALL of the words “Temple” ○ 2 Hits</p>

Fig. 11 Search Result in GSDL

MediaWiki can only match the result with the page title while our page title for this project is “Digital Collections of WanChai District Council”. Therefore, No result is found when we search “Temple” (Fig. 12).

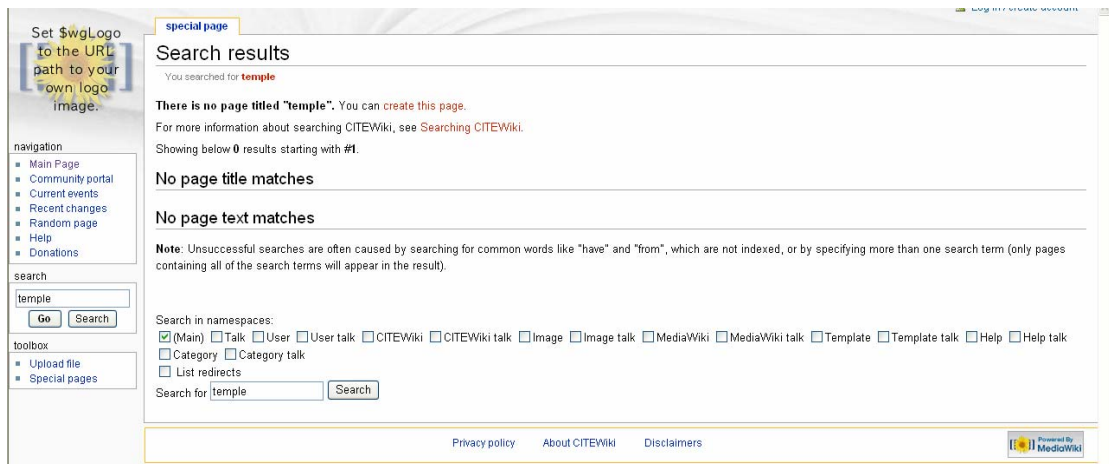


Fig 12 Search Result in MediaWiki

To sum up, we found that DSpace provides the best search and browse functions, while GSDL and MediaWiki will still have room to improve and the search engine of MediaWiki is the weakest among these three software. Therefore, DSpace is the best performer in search support as its searching and browsing function are better than the other two software, GSDL and MediaWiki.

4.2 User interface.

The user interface requirement covers the flexibility in customizing the interface to suit the needs of different DL implementations as well as the support for multilingual access. (Goh, et al. 2006) With multilingual access, the user is able to specify the language for the DL's user interface as well as the cataloging information stored within it (Witten and Bainbridge, 2002).

4.2.1 Interface Modification

Interface is a program that controls a display for the user (usually on a computer monitor) and that allows the user to interact with the system. (Ruth, 2004) These three software allow users to modify interface and support multi-lingual interfaces which can increase the language flexibility. Changing the logo and the colors of the page, adding new wallpaper are some examples of modifying the interface. Following are some modified interfaces:



Fig 13: Interfaces in DSpace



○ Original interface



○ Modified interface

Fig 14: Interfaces in GSDL



○ Original interface



○ Modified interface

Fig 15: Interfaces in MediaWiki

4.3 System support and help

The DL needs to provide mechanisms through which DL administrators and developers can obtain system support and help. Such mechanisms include documentation, manuals, mailing lists, discussion forums, bug tracking, feature request systems and formal helpdesk support. (Goh, et al. 2006)

4.3.1 System support

System support is part of system function or services let user totally master of a particular system. For example, technical support, customer service and product support, act as after-selling support for user. Therefore, it also viewed as a help desk answering possible and frequently asked questions from users.

	DSpace	GSDL	MediaWiki
Documentation/ manuals	Yes	Yes	Yes
Mailing lists	Yes	Yes	Yes
FAQ	Yes	Yes	Yes

Fig. 16 Various System Support Features within DSpace, GSDL and MediaWiki

Fig. 16 compares three main features: Documentation, Mailing Lists, and Frequently Asked Questions (FAQ) of the three open source software. Documentation is any communicable material used to explain some attributes of an object, system or procedure, while Mailing Lists are open to anyone who subscribes or a few private mailing lists open only to selected users, and FAQ invite authorized user to contribute effort for the use of the software.

To investigate the usefulness of mailing lists, we also join all of the mailing lists provided by these three systems and raise question in the platform (Fig. 17-19). We discover that such software really solve our questions through sending mails from lots of experts. Moreover, we also try to use same question (Where can I download the software) finding answer in three related documentation respectively (Fig. 20). Finally, we can easily find out the correct answer from the documentation.

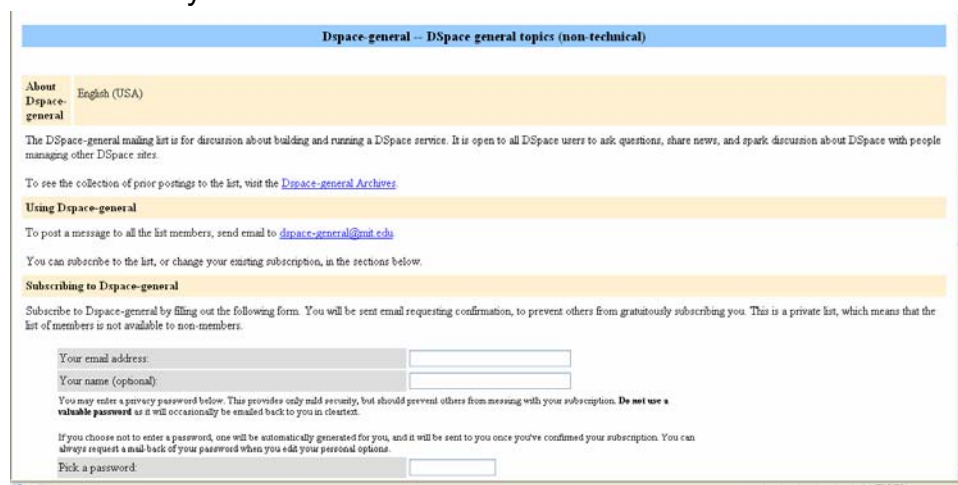


Fig. 17: Mailing List of Dspace

(<http://mailman.mit.edu/mailman/listinfo/dspace-general>)

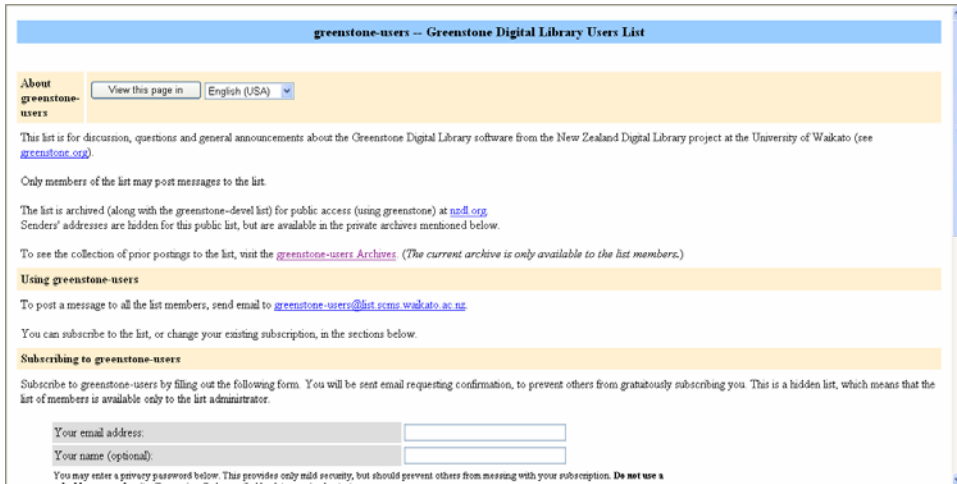


Fig. 18: Mailing List of GSDL

(<https://list.scms.waikato.ac.nz/mailman/listinfo/greenstone-users>)

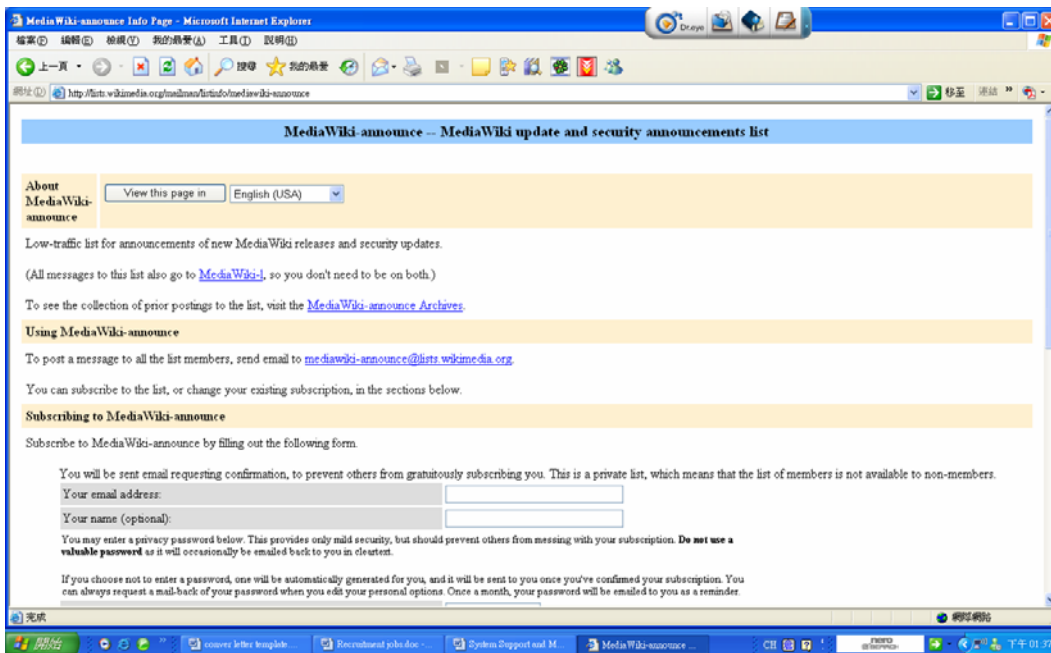


Fig. 19: Mailing List of MediaWiki

(<http://lists.wikimedia.org/mailman/listinfo/mediawiki-announce>)



Fig. 20 Finding results from three Documentations.

Therefore, from our experience mentioned above we can conclude that all of these software have performed well in system support and help.

5. Overall performance of the three open source software

Base on our evaluation criteria, table 5 shows the overall performance of the three open source software.

	Dspace	GSDL	MeidaWiki
Content management	High	High	Low
User Interface	Medium	High	Medium
System support and help	High	High	High

Fig. 21 Overall performance of the three open source software

After comparing the three open source software, we can conclude that GSDL is the best software for developing a DL. Since the GSDL performs well in content management, it can reinforce metadata schemas support provide the variety of search support. Moreover, the flexibility on changing the user interface enhances the usability of the platform. Furthermore, the system support offers a reliable source for solving any general and technical questions of the software.

6. Conclusion

All in all, the design of the DL is to preserve the history and cultural information for WanChai District. Through the user needs assessment, the vast of specific and unique requirements to the DL are gathered. Based on these users' requirements, a thoughtful and user-friendly DL could be developed. However, well-designed DL software is crucial as well. Hence, in this report, the comparison of the three open source DL software is discussed. The comparison is conducted follow on the three evaluation criteria which include content management, user interface and system support. Eventually, the result of the comparison shows that GSDL has advanced performance than Dspace and Wiki.

In the near future, perhaps the next superior DL software will be launched. We are looking forward to this new open source DL software can combine the advantages of the three compared open source software.

7. References

CITEWiki. (2007). *Digital Collection of WanChai District Council: CITEWiki*. Retrieved March 5 2007 from

http://mediawiki-dev.cite.hku.hk/index.php/Digital_Collection_of_WanChai_District_Council.

Commonwealth of Australia. (2007). *Metadata: AGLS*. Retrieved March 2, 2007 from <http://www.agimo.gov.au/webguide/structure/metadata>.

Data Standards Committee. (2001). *VRA core version 3*. Retrieved March 2, 2007 from <http://www.vraweb.org/vracore3.htm>.

Dspace Federation. (2007). *Dspace general*. Retrieved March 2, 2007 from <http://mailman.mit.edu/mailman/listinfo/dspace-general>.

DSpace Software. (2006). *CITE DSpace Server: Home*. Retrieved March 5 2007 from <http://dspace.cite.hku.hk:8080/dspace/>.

Foo, Schubert., Theng, Yin-Leng. (Eds) (2005). *Design and usability of digital libraries: case studies in the Asia Pacific*. Hershey, Pa.: Information Science Publishing.

Foster, N., & Gibbons, S. (2005). Understanding faculty to improve content recruitment for institutional repositories. *Online Submission*, Retrieved on February 3, 2007 from ERIC.

Frumkin, J. (2005). The Wiki and the digital library. *OCLC systems and services*, 21(1), 18. Retrieved on Feb 3 2007 from Emerald.

Goh, H.L.D., Chua, A., Khoo, D. A., Khoo, B.H.E., Mak, B.T.E., & Ng, W.M.M. (2006). A checklist for evaluating open source digital library software. *Online Information Review*, 30(4), 360-379.

Greenstone Digital Library Software (2006), Retrieved on Feb 5 2007 from <http://greenstone.org>.

Greenstone digital library software. (2007). Greenstone digital library software. Retrieved March 5 2007 from <http://greenstone-dev.cite.hku.hk/cgi-bin/library>.

Greenstone Digital Library software. (2007). *Greenstone users*. Retrieved March 2, 2007 from <https://list.scms.waikato.ac.nz/mailman/listinfo/greenstone-users>.

Haynes, J. (2004). *Metadata for Information Management*. London: Facet.

Lasher, R., & Cohen, D. (1995). *RFC 1807: RFC1807*. Retrieved March 2, 2007 from <http://www.faqs.org/rfcs/rfc1807.html>.

Marchionini, G., Plaisant, C., & Komlodi, A. (2003). The People in Digital Libraries: Multifaceted Approaches to Assessing Needs and Impact. In A. P. Bishop (Ed.), *Digital library use: social practice in design and evaluation*. Cambridge, Mass.: MIT Press

MediaWiki. (2007). *MediaWiki announce*. Retrieved March 2, 2007 from <http://lists.wikimedia.org/mailman/listinfo/mediawiki-announce>.

Ruth, A. (2004). *Learning at the Screenface: A pentadic analysis of email discussion lists*. Griffith University.

Smith, M., Bass, M., McClellan, G., & Tansley, R. (2003). DSpace: an open source dynamic digital repository. *D-Lib Magazine*, 9(1). Retrieved on February 05, 2007 from Library, Information Science & Technology Abstracts database.

Sonkar, S.K., Makhija, V., Kumar, A., & Singh, M. (2005). Application of Greenstone Digital Library (GSDL) software in newspapers clippings. *DESIDOC Bulletin of Information Technology*, 25(3), 9-17.

State Services Commission. (2007). *NZGLS metadata standard: Home page*. Retrieved March 2, 2007 from <http://www.e.govt.nz/standards/nzgl/standard>.

Wikipedia. (2007). *Digital Library*. Retrieved on March 4, 2007 from http://en.wikipedia.org/wiki/Digital_library.

Wikipedia. (2007). *Dublin Core*. Retrieved on March 4, 2007 from http://en.wikipedia.org/wiki/Dublin_Core.

Wikipedia. (2007). *MARC standards*. Retrieved March 2, 2007 from http://en.wikipedia.org/wiki/MARC_21.

Witten, I.H., Bainbridge, D. (2002). *How to Build a Digital Library*, Morgan Kaufmann, San Francisco, CA.

Witten, I.H., Bainbridge, D. (2005) Creating digital library collections with Greenstone. *Library Hi Tech*, 23(4), 541-560.

8. Appendixes

Appendix 1.1: Questionnaire for preserving history and cultural information for WanChai District (Chinese Version)

保護灣仔區歷史和地區的文化資料問卷調查

我們是香港大學的學生，正計劃建立一個電子圖書館來保存灣仔區的歷史和地區的文化資料。為了解用戶的需要，這問卷是用作收集用戶關於電子圖書館的期望。

這問卷需時約 15 分鐘，所有提供的資料將為研究用途，並會在 6 個月後銷毀。謝謝。

第一部分 – 意見問題

1. 為保護灣仔區的歷史和地區的文化資料，你認為這個電子圖書館應該包含什麼？

2. 以下內容包含我們可能想要在這個電子圖書館包括的資料類型，請註明你對該資料類型的重要性。

	最不important						最重要
	1	2	3	4	5	6	7
藝術	1	2	3	4	5	6	7
建築	1	2	3	4	5	6	7
環境	1	2	3	4	5	6	7
節日	1	2	3	4	5	6	7
食品	1	2	3	4	5	6	7
生活模式	1	2	3	4	5	6	7
種族	1	2	3	4	5	6	7
宗教	1	2	3	4	5	6	7
交通	1	2	3	4	5	6	7
其他， 請註明:	1	2	3	4	5	6	7

3. 根據不同的時段，請註明你對灣仔區電子圖書館的興趣。

	最不感興趣						最有興趣
第一次世界大戰前 (1914 前)	1	2	3	4	5	6	7
第一次世界大戰 至第二次世界大戰 (1914 – 1945)	1	2	3	4	5	6	7
第二次世界大戰後 至六七暴動 (1946 -1967)	1	2	3	4	5	6	7
六七暴動後 至中英聯合聲明 (1968 – 1984)	1	2	3	4	5	6	7
中英聯合聲明後 至香港主權回歸 (1985 – 1997)	1	2	3	4	5	6	7
香港主權回歸後 至現在 (1998 – 2007)	1	2	3	4	5	6	7

4. 請表明在這個電子圖書館的不同檢索功能或特色的有用程度

	沒有用				非常有用		
作者	1	2	3	4	5	6	7
資料類型	1	2	3	4	5	6	7
主題	1	2	3	4	5	6	7
標題	1	2	3	4	5	6	7
其他，請註明:	1	2	3	4	5	6	7

第二部分 – 個人資料

1. 性別

- 男
- 女

2. 年齡

- 25 以下
- 25 至 34
- 35 至 44
- 45 至 54
- 55 或以上

3. 居住地區

- 灣仔區
- 香港以內其他區域
- 國內或海外

4. 職業狀況

- 受僱
- 家庭主婦
- 退休
- 自僱
- 學生
- 休業
- 其他，請註明:

問卷完
多謝支持!

Appendix 1.2: Questionnaire for preserving history and cultural information for WanChai District

We are students from The University of Hong Kong. We plan to develop a DL to preserve the history and cultural information for WanChai District. This questionnaire helps us to understand the user's expectation about the DL.

We would appreciate if you could spend 15 minutes on completing this survey. All information provided will be kept confidential and destroyed after six months, and will only be used for research purpose. Thank you.

PART A – Opinion Questions

1. For preserving the history and cultural information for WanChai District, what do you think this DL should contain?

2. The following contains different types of information that we may want to include in the DL, please indicate the levels of importance.

	Least Important					Most Important	
	1	2	3	4	5	6	7
Arts	1	2	3	4	5	6	7
Architectures	1	2	3	4	5	6	7
Environment	1	2	3	4	5	6	7
Festival	1	2	3	4	5	6	7
Food	1	2	3	4	5	6	7
Life style	1	2	3	4	5	6	7
Race	1	2	3	4	5	6	7
Religions	1	2	3	4	5	6	7
Transportation	1	2	3	4	5	6	7
Others, please specify:	1	2	3	4	5	6	7

3. Please indicate your levels of interest in regards of different time period for this WanChai District DL.

	Least Interested					Most Interested	
	1	2	3	4	5	6	7
Before World War I (Before 1914)	1	2	3	4	5	6	7
World War I to World War II (1914 – 1945)	1	2	3	4	5	6	7
World War II to Leftist Riots (1946 -1967)	1	2	3	4	5	6	7
Leftist Riots to Sino-British Joint Declaration (1968 – 1984)	1	2	3	4	5	6	7
Sino-British Joint Declaration to Sovereignty Transfer of Hong Kong (1985 – 1997)	1	2	3	4	5	6	7
Sovereignty Transfer of Hong Kong to now (1998 – 2007)	1	2	3	4	5	6	7

4. Please indicate the level of usefulness of different search functions/
features in this DL

	Least Useful			Most Useful			
Author	1	2	3	4	5	6	7
Material type	1	2	3	4	5	6	7
Subject	1	2	3	4	5	6	7
Title	1	2	3	4	5	6	7
Others, please specify:	1	2	3	4	5	6	7

PART B – Personal Information

1. Gender

- Male
- Female

2. Age

- Below 25
- 25 to 34
- 35 to 44
- 45 to 54
- 55 or above

3. Location of normal residence

- WanChai District
- Other parts in Hong Kong
- Mainland or Overseas

4. Status of employment

- Employed
- Housewife
- Retired
- Self-employed
- Student
- Unemployed
- Others, please specify:

The End
Thank you very much!